AUTHOR INDEX

Anderson, Robert H., Two-dimensional magneto-optic spatial light modulator for signal processing, 191
Ayres, B., Real-time computer network for war games, 288
Bannister, J. A., Performance analysis of systolic array architectures, 269
Bergen, T. L., Evaluation of spatial filters for background suppression in infrared mosaic sensor systems, 209
Broughton, J. M., S-1 multiprocessor system, 327
Brown, Douglas E., Adaptive filtering with correlation cancellation loops, 140
Burke, B. E., High speed charge-coupled device (CCD) two-dimensional correlator, 159
Burlage, Donald W., Very high speed integrated circuit (VHSIC) chip sets and brassboards, 240
Carlotto, Mark, Adaptive phased array radar processing using an optical matrix-vector processor, 182
Casasent, David, Adaptive phased array radar processing using an optical matrix-vector processor, 182
———, Numerical algorithms and optical signal processing architectures (Oral only), 347
———, Spread spectrum product code processing using the triple product processor, 153
Cavin, Ralph K. III, Concurrent very large scale integration (VLSI) structure for digital signal processing, 252
Chen, C.-H., Pattern nonuniformities of imaging charge injection device arrays due to distributed resistance capacitance effects, 223
Chiang, A. M., High speed charge-coupled device (CCD) two-dimensional correlator, 159
Clary, J. B., Performance analysis of systolic array architectures, 269
Cohen, Jonathan D., Frequency division multiplexing optical processors, 165
———, Real-time space integrating optical ambiguity processor, 148
Colton, Bruce, Advanced flexible processor—a multiprocessor computing system, 318
Cotten, J., Real-time computer network for war games, 288
Doty, K. W., Software allocation for distributed signal processors, 339
Eggert, Jay A., Distributed data flow signal processors, 310
Erickson, Jerry L., Linear acousto-optic filters for programmable and adaptive filtering, 173
Farmwald, P. M., S-1 multiprocessor system, 327
Fawcett, James, Partitioning and tearing applied to cellular array processing, 118
Finn, Alan M., Systolic array computation of the singular value decomposition, 35
Fisher, Allan L., Synchronizing large systolic arrays, 44
Gal-Ezer, R. J., Synchronous versus asynchronous computation in very large scale integrated (VLSI) array processors, 53
Gilmore, John F., Differential based gradient contour segmentation algorithm, 109
Guilfoyle, Peter S., Problems in two dimensions, 199
Hafen, A., Real-time computer network for war games, 288
Hines, John W., Comparison of very high speed integrated circuit (VHSIC) chip set architectures (Cancelled), 347
Hsing, To R., Robust adaptive thresholder for document scanning applications, 94
Huntley, D. T., Pyramidal normalization filter: visual model with applications to image understanding, 99
Johnson, Marshall, Candidate multiple processor architectures for numerical aerodynamic simulator (NAS) project (Cancelled), 347
Kanno, Toshio, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Klinger, Allen, Image processing computer using three-dimensional cellular logic architecture, 303
Knaak, T. F., Pyramidal normalization filter: visual model with applications to image understanding, 99
Krasner, Norman F., High speed programmable filtering using fast Fourier transform (FFT) processing, 136
Kung, H. T., Integrating high-performance special purpose devices into a system, 17
———, Synchronizing large systolic arrays, 44
Kung, S. Y., Synchronous versus asynchronous computation in very large scale integrated (VLSI) array processors, 53
Lee, John N., New acousto-optic devices for Fourier transformation, 86
Leonard, Patrick F., Cytocomputer signal processing concepts for industrial technology, 126
Lin, Shih-Chun, New acousto-optic devices for Fourier transformation, 86
Luk, Franklin T., Systolic array computation of the singular value decomposition, 35
Lundstrom, Stephen F., Controllable multiple-instruction, multiple-data stream (MIMD) architecture, 333
Maekawa, Tohru, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Marr, James D., Relative performance of very high speed integrated circuit (VHSIC) chip sets for selected signal processing functions, 245
Mazaika, P. K., Evaluation of spatial filters for background suppression in infrared mosaic sensor systems, 209
McCanny, J. V., Novel multibit convolver/correlator chip design based on systolic array principles, 66
McCrady, Dennis D., Incoherent electro-optical processing: a tutorial, 76
McCubbrey, David L., Cytocomputer signal processing concepts for industrial technology, 126
McCully, G. R., High speed charge-coupled device (CCD) two-dimensional correlator, 159
McEntire, P. L., Software allocation for distributed signal processors, 339
McGonagle, W. H., High speed charge-coupled device (CCD) two-dimensional correlator, 159
McWhirter, J. G., Novel multibit convolver/correlator chip design based on systolic array principles, 66
McWilliams, T. M., S-1 multiprocessor system, 327
Melia, J. F., High speed charge-coupled device (CCD) two-dimensional correlator, 159
Miyamoto, Yoshihiro, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
O'Reilly, J. G., Software allocation for distributed signal processors, 339
Patterson, W. R. III, Pyramidal normalization filter: visual model with applications to image understanding, 99
Pocock, D. N., Pattern nonuniformities of imaging charge injection device arrays due to distributed resistance capacitance effects, 223
Pottle, Christopher, Systolic array computation of the singular value decomposition, 35
Powell, Noble R., Numerical considerations in integrated functions, 23
Preston, Kendall, Image processing computer using three-dimensional cellular logic architecture, 303
Priester, R. W., Signal processor architecture performance assessment for very high speed integrated circuits (VHSIC), 260
Psaltis, Demetri, Two-dimensional magneto-optic spatial light modulator for signal processing, 191
Quesnell, Harris, Fault tolerant distributive processing, 296
Rettberg, R., Butterfly multiprocessor (Oral only), 347
Rhodes, Joanne F., Adaptive filtering with correlation cancellation loops, 140
Ross, William E., Two-dimensional magneto-optic spatial light modulator for signal processing, 191
Schenker, P. S., Pyramidal normalization filter: visual model with applications to image understanding, 99
Schreiber, Robert, Systolic arrays for eigenvalue computation, 27
Silbershatz, Giora, Spread spectrum product code processing using the triple product processor, 153

AUTHOR INDEX

Anderson, Robert H., Two-dimensional magneto-optic spatial light modulator for signal processing, 191
Ayres, B., Real-time computer network for war games, 288
Bannister, J. A., Performance analysis of systolic array architectures, 269
Bergen, T. L., Evaluation of spatial filters for background suppression in infrared mosaic sensor systems, 209
Broughton, J. M., S-1 multiprocessor system, 327
Brown, Douglas E., Adaptive filtering with correlation cancellation loops, 140
Burke, B. E., High speed charge-coupled device (CCD) two-dimensional correlator, 159
Burlage, Donald W., Very high speed integrated circuit (VHSIC) chip sets and brassboards, 240
Carlotto, Mark, Adaptive phased array radar processing using an optical matrix-vector processor, 182
Casasent, David, Adaptive phased array radar processing using an optical matrix-vector processor, 182
———, Numerical algorithms and optical signal processing architectures (Oral only), 347
———, Spread spectrum product code processing using the triple product processor, 153
Cavin, Ralph K. III, Concurrent very large scale integration (VLSI) structure for digital signal processing, 252
Chen, C.-H., Pattern nonuniformities of imaging charge injection device arrays due to distributed resistance capacitance effects, 223
Chiang, A. M., High speed charge-coupled device (CCD) two-dimensional correlator, 159
Clary, J. B., Performance analysis of systolic array architectures, 269
Cohen, Jonathan D., Frequency division multiplexing optical processors, 165
———, Real-time space integrating optical ambiguity processor, 148
Colton, Bruce, Advanced flexible processor—a multiprocessor computing system, 318
Cotten, J., Real-time computer network for war games, 288
Doty, K. W., Software allocation for distributed signal processors, 339
Eggert, Jay A., Distributed data flow signal processors, 310
Erickson, Jerry L., Linear acousto-optic filters for programmable and adaptive filtering, 173
Farmwald, P. M., S-1 multiprocessor system, 327
Fawcett, James, Partitioning and tearing applied to cellular array processing, 118
Finn, Alan M., Systolic array computation of the singular value decomposition, 35
Fisher, Allan L., Synchronizing large systolic arrays, 44
Gal-Ezer, R. J., Synchronous versus asynchronous computation in very large scale integrated (VLSI) array processors, 53
Gilmore, John F., Differential based gradient contour segmentation algorithm, 109
Guilfoyle, Peter S., Problems in two dimensions, 199
Hafen, A., Real-time computer network for war games, 288
Hines, John W., Comparison of very high speed integrated circuit (VHSIC) chip set architectures (Cancelled), 347
Hsing, To R., Robust adaptive thresholder for document scanning applications, 94
Huntley, D. T., Pyramidal normalization filter: visual model with applications to image understanding, 99
Johnson, Marshall, Candidate multiple processor architectures for numerical aerodynamic simulator (NAS) project (Cancelled), 347
Kanno, Toshio, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Klinger, Allen, Image processing computer using three-dimensional cellular logic architecture, 303
Knaak, T. F., Pyramidal normalization filter: visual model with applications to image understanding, 99
Krasner, Norman F., High speed programmable filtering using fast Fourier transform (FFT) processing, 136
Kung, H. T., Integrating high-performance special purpose devices into a system, 17
———, Synchronizing large systolic arrays, 44
Kung, S. Y., Synchronous versus asynchronous computation in very large scale integrated (VLSI) array processors, 53
Lee, John N., New acousto-optic devices for Fourier transformation, 86
Leonard, Patrick F., Cytocomputer signal processing concepts for industrial technology, 126
Lin, Shih-Chun, New acousto-optic devices for Fourier transformation, 86
Luk, Franklin T., Systolic array computation of the singular value decomposition, 35
Lundstrom, Stephen F., Controllable multiple-instruction, multiple-data stream (MIMD) architecture, 333
Maekawa, Tohru, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Marr, James D., Relative performance of very high speed integrated circuit (VHSIC) chip sets for selected signal processing functions, 245
Mazaika, P. K., Evaluation of spatial filters for background suppression in infrared mosaic sensor systems, 209
McCanny, J. V., Novel multibit convolver/correlator chip design based on systolic array principles, 66
McCrady, Dennis D., Incoherent electro-optical processing: a tutorial, 76
McCubbrey, David L., Cytocomputer signal processing concepts for industrial technology, 126
McCully, G. R., High speed charge-coupled device (CCD) two-dimensional correlator, 159
McEntire, P. L., Software allocation for distributed signal processors, 339
McGonagle, W. H., High speed charge-coupled device (CCD) two-dimensional correlator, 159
McWhirter, J. G., Novel multibit convolver/correlator chip design based on systolic array principles, 66
McWilliams, T. M., S-1 multiprocessor system, 327
Melia, J. F., High speed charge-coupled device (CCD) two-dimensional correlator, 159
Miyamoto, Yoshihiro, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
O'Reilly, J. G., Software allocation for distributed signal processors, 339
Patterson, W. R. III, Pyramidal normalization filter: visual model with applications to image understanding, 99
Pocock, D. N., Pattern nonuniformities of imaging charge injection device arrays due to distributed resistance capacitance effects, 223
Pottle, Christopher, Systolic array computation of the singular value decomposition, 35
Powell, Noble R., Numerical considerations in integrated functions, 23
Preston, Kendall, Image processing computer using three-dimensional cellular logic architecture, 303
Priester, R. W., Signal processor architecture performance assessment for very high speed integrated circuits (VHSIC), 260
Psaltis, Demetri, Two-dimensional magneto-optic spatial light modulator for signal processing, 191
Quesnell, Harris, Fault tolerant distributive processing, 296
Rettberg, R., Butterfly multiprocessor (Oral only), 347
Rhodes, Joanne F., Adaptive filtering with correlation cancellation loops, 140
Ross, William E., Two-dimensional magneto-optic spatial light modulator for signal processing, 191
Schenker, P. S., Pyramidal normalization filter: visual model with applications to image understanding, 99
Schreiber, Robert, Systolic arrays for eigenvalue computation, 27
Silbershatz, Giora, Spread spectrum product code processing using the triple product processor, 153

Snyder, Lawrence, Configurable, highly parallel (CHiP) approach for signal processing applications, 8
Speiser, Jeffrey M., Numerical algorithms and optical signal processing architectures (Oral only), 347
Sridhar, B., Software allocation for distributed signal processors, 339
Strader, Noel R. II, Concurrent very large scale integration (VLSI) structure for digital signal processing, 252
Sumney, L. W., Very high speed integrated circuit (VHSIC) program overview (Cancelled), 347
Swartzlander, Earl E., Jr., Computer networking in the context of very large scale integration (VLSI), 278
Symanski, J. J., Progress on a systolic processor implementation, 2
Takigawa, Hiroshi, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Tanikawa, Kunihiro, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Tsunoda, Reikichi, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Tveten, A. B., New acousto-optic devices for Fourier transformation, 86
Unangst, D. R., Pyramidal normalization filter: visual model with applications to image understanding, 99
VanAtta, Peter W., Cytocomputer signal processing concepts for industrial technology, 126
Wood, K. W., Novel multibit convolver/correlator chip design based on systolic array principles, 66
Yamamoto, Toshiro, Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Yu, S. Q., Integrating high-performance special purpose devices into a system, 17

SUBJECT INDEX

Acousto-optic devices for Fourier transformation, new, 86
Acousto-optic filters for programmable and adaptive filtering, linear, 173
Adaptive filtering with correlation cancellation loops, 140
Adaptive filtering, linear acousto-optic filters for programmable and, 173
Adaptive phased array radar processing using an optical matrix-vector processor, 182
Adaptive thresholder for document scanning applications, robust, 94
Advanced flexible processor—a multiprocessor computing system, 318
Algorithm, differential based gradient contour segmentation, 109
Ambiguity processor, real-time space integrating optical, 148
Architecture, controllable multiple-instruction, multiple-data stream (MIMD), 333
Architecture, image processing computer using three-dimensional cellular logic, 303
Architecture performance assessment for very high speed integrated circuits (VHSIC), signal processor, 260
Architectures, performance analysis of systolic array, 269
Array architectures, performance analysis of systolic, 269
Array computation of the singular value decomposition, systolic, 35
Array principles, novel multibit convolver/correlator chip design based on systolic, 66
Array processing, partitioning and tearing applied to cellular, 118
Array processors, synchronous versus asynchronous computation in very large scale integrated (VLSI), 53
Array radar processing using an optical matrix-vector processor, adaptive phased, 182
Arrays due to distributed resistance capacitance effects, pattern nonuniformities of imaging charge injection device, 223
Arrays for eigenvalue computation, systolic, 27
Arrays with metal insulator semiconductor (MIS) structure, evaluation method for infrared focal plane, 230
Arrays, synchronizing large systolic, 44
Asynchronous computation in very large scale integrated (VLSI) array processors, synchronous versus, 53

Background suppression in infrared mosaic sensor systems, evaluation of spatial filters for, 209
Brassboards, very high speed integrated circuit (VHSIC) chip sets and, 240
Butterfly multiprocessor (Oral only), 347

Candidate multiple processor architectures for numerical aerodynamic simulator (NAS) project (Cancelled), 347
Cellular array processing, partitioning and tearing applied to, 118
Cellular logic architecture, image processing computer using three-dimensional, 303
Charge-coupled device (CCD) two-dimensional correlator, high speed, 159
Charge injection device arrays due to distributed resistance capacitance effects, pattern nonuniformities of imaging, 223
Chip design based on systolic array principles, novel multibit convolver/correlator, 66
Chip sets and brassboards, very high speed integrated circuits (VHSIC), 240
Chip sets for selected signal processing functions, relative performance of very high speed integrated circuit (VHSIC), 245
Comparison of very high speed integrated circuit (VHSIC) chip set architectures (Cancelled), 347
Computation of the singular value decomposition, systolic array, 35
Computation in very large scale integrated (VLSI) array processors, synchronous versus asynchronous, 53
Computer network for war games, real-time, 288
Computer networking in the context of very large scale integration (VLSI), 278
Computer using three-dimensional cellular logic architecture, image processing, 303
Computing system, advanced flexible processor—a multiprocessor, 318
Concurrent very large scale integration (VLSI) structure for digital signal processing, 252
Configurable, highly parallel (CHiP) approach for signal processing applications, 8
Contour segmentation algorithm, differential based gradient, 109
Controllable multiple-instruction, multiple-data stream (MIMD) architecture, 333
Convolver/correlator chip design based on systolic array principles, novel multibit, 66
Correlation cancellation loops, adaptive filtering with, 140
Correlator chip design based on systolic array principles, novel multibit convolver/, 66
Correlator, high speed charge-coupled device (CCD) two-dimensional, 159
Cytocomputer signal processing concepts for industrial technology, 126

Data flow signal processors, distributed, 310
Decomposition, systolic array computation of the singular value, 35
Differential based gradient contour segmentation algorithm, 109
Digital signal processing, concurrent very large scale integration (VLSI) structure for, 252
Distributed data flow signal processors, 310
Distributed resistance capacitance effects, pattern nonuniformities of imaging charge injection device arrays due to, 223
Distributed signal processors, software allocation for, 339
Distributive processing, fault tolerant, 296
Division multiplexing optical processors, frequency, 165

Document scanning applications, robust adaptive thresholder for, 94

Eigenvalue computation, systolic arrays for, 27
Electro-optical processing: a tutorial, incoherent, 76
Evaluation method for infrared focal plane arrays with metal insulator semiconductor (MIS) structure, 230
Evaluation of spatial filters for background suppression in infrared mosaic sensor systems, 209

Fast Fourier transform (FFT) processing, high speed programmable filtering using, 136
Fault tolerant distributive processing, 296
Filter: visual model with applications to image understanding, pyramidal normalization, 99
Filtering with correlation cancellation loops, adaptive, 140
Filtering using fast Fourier transform (FFT) processing, high speed programmable, 136
Filtering, linear acousto-optic filters for programmable and adaptive, 173
Filters for background suppression in infrared mosaic sensor systems, evaluation of spatial, 209
Filters for programmable and adaptive filtering, linear acousto-optic, 173
Focal plane arrays with metal insulator semiconductor (MIS) structure, evaluation method for infrared, 230
Fourier transformation, new acousto-optic devices for, 86
Frequency division multiplexing optical processors, 165

Gradient contour segmentation algorithm, differential based, 109

High-performance special purpose devices into a system, integrating, 17
High speed charge-coupled device (CCD) two-dimensional correlator, 159
High speed integrated circuit (VHSIC) chip sets and brassboards, very, 240
High speed integrated circuits (VHSIC), signal processor architecture performance assessment for very, 260
High speed programmable filtering using fast Fourier transform (FFT) processing, 136

Image processing computer using three-dimensional cellular logic architecture, 303
Image understanding, pyramidal normalization filter: visual model with applications to, 99
Imaging charge injection device arrays due to distributed resistance capacitance effects, pattern nonuniformities of, 223
Incoherent electro-optical processing: a tutorial, 76
Industrial technology, Cytocomputer signal processing concepts for, 126
Infrared focal plane arrays with metal insulator semiconductor (MIS) structure, evaluation method for, 230
Infrared mosaic sensor systems, evaluation of spatial filters for background suppression in, 209
Integrated (VLSI) array processors, synchronous versus asynchronous computation in very large scale, 53
Integrated circuit (VHSIC) chip sets for selected signal processing functions, relative performance of very high speed, 245
Integrated circuit (VHSIC) chip sets and brassboards, very high speed, 240
Integrated circuits (VHSIC), signal processor architecture performance assessment for very high speed, 260
Integrated functions, numerical considerations in, 23
Integrating high-performance special purpose devices into a system, 17
Integrating optical ambiguity processor, real-time space, 148
Integration (VLSI) structure for digital signal processing, concurrent very large scale, 252

Light modulator for signal processing, two-dimensional magneto-optic spatial, 191
Linear acousto-optic filter for programmable and adaptive filtering, 173
Logic architecture, image processing computer using three-dimensional cellular, 303

Magneto-optic spatial light modulator for signal processing, two-dimensional, 191
Matrix-vector processor, adaptive phased array radar processing using an optical, 182
Metal insulator semiconductor (MIS) structure, evaluation method for infrared focal plane arrays with, 230
Model with applications to image understanding, pyramidal normalization filter: visual, 99
Modulator for signal processing, two-dimensional magneto-optic spatial light, 191
Mosaic sensor systems, evaluation of spatial filters for background suppression in infrared, 209
Multibit convolver/correlator chip design based on systolic array principles, novel, 66
Multiple-data stream (MIMD) architecture, controllable multiple-instruction, 333
Multiple-instruction, multiple-data stream (MIMD) architecture, controllable, 333
Multiplexing optical processors, frequency division, 165
Multiprocessor computing system, advanced flexible processor—a, 318
Multiprocessor system, S-1, 327

Networking in the context of very large scale integration (VLSI), computer, 278
New acousto-optic devices for Fourier transformation, 86
Normalization filter: visual model with applications to image understanding, pyramidal, 99
Novel multibit convolver/correlator chip design based on systolic array principles, 66
Numerical algorithms and optical signal processing architectures (Oral only), 347
Numerical considerations in integrated functions, 23

Optical ambiguity processor, real-time space integrating, 148
Optical matrix-vector processor, adaptive phased array radar processing using an, 182
Optical processing: a tutorial, incoherent electro-, 76
Optical processors, frequency division multiplexing, 165

Partitioning and tearing applied to cellular array processing, 118
Pattern nonuniformities of imaging charge injection device arrays due to distributed resistance capacitance effects, 223
Performance analysis of systolic array architectures, 269
Problems in two dimensions, 199
Processing using an optical matrix-vector processor, adaptive phased array radar, 182
Processor, adaptive phased array radar processing using an optical matrix-vector, 182
Processor architecture performance assessment for very high speed integrated circuits (VHSIC), signal, 260
Processor implementation, progress on a systolic, 2
Processor—a multiprocessor computing system, advanced flexible, 318
Processor, real-time space integrating optical ambiguity, 148
Processor, spread spectrum product code processing using the triple product, 153
Processors, frequency division multiplexing optical, 165
Processors, synchronous versus asynchronous computation in very large scale integrated (VLSI) array, 53
Product code processing using the triple product processor, spread spectrum, 153
Product processor, spread spectrum product code processing using the triple, 153
Progress on a systolic processor implementation, 2
Pyramidal normalization filter: visual model with applications to image understanding, 99

Radar processing using an optical matrix-vector processor, adaptive phased array, 182
Real-time computer network for war games, 288
Real-time space integrating optical ambiguity processor, 148
Relative performance of very high speed integrated circuit (VHSIC) chip sets for selected signal processing functions, 245
Resistance capacitance effects, pattern nonuniformities of imaging charge injection device arrays due to distributed, 223
Robust adaptive thresholder for document scanning applications, 94

S-1 multiprocessor system, 327
Scanning applications, robust adaptive thresholder for document, 94
Segmentation algorithm, differential based gradient contour, 109
Semiconductor (MIS) structure, evaluation method for infrared focal plane arrays with metal insulator, 230
Sensor systems, evaluation of spatial filters for background suppression in infrared mosaic, 209
Signal processing applications, configurable, highly parallel (CHiP) approach for, 8
Signal processing concepts for industrial technology, Cytocomputer, 126
Signal processing, concurrent very large scale integration (VLSI) structure for digital, 252
Signal processing functions, relative performance of very high speed integrated circuit (VHSIC) chip sets for selected, 245
Signal processing, two-dimensional magneto-optic spatial light modulator for, 191
Signal processor architecture performance assessment for very high speed integrated circuits (VHSIC), 260
Signal processors, distributed data flow, 310
Signal processors, software allocation for distributed, 339
Software allocation for distributed signal processors, 339
Space integrating optical ambiguity processor, real-time, 148
Spatial filters for background suppression in infrared mosaic sensor systems, evaluation of, 209
Spatial light modulator for signal processing, two-dimensional magneto-optic, 191
Spread spectrum product code processing using the triple product processor, 153
Synchronizing large systolic arrays, 44
Synchronous versus asynchronous computation in very large scale integrated (VLSI) array processors, 53
Systolic array architectures, performance analysis of, 269
Systolic array computation of the singular value decomposition, 35
Systolic array principles, novel multibit convolver/correlator chip design based on, 66
Systolic arrays for eigenvalue computation, 27
Systolic arrays, synchronizing large, 44
Systolic processor implementation, progress on a, 2

Tearing applied to cellular array processing, partitioning and, 118
Three-dimensional cellular logic architecture, image processing computer using, 303
Thresholder for document scanning applications, robust adaptive, 94
Transformation, new acousto-optic devices for Fourier, 86
Triple product processor, spread spectrum product code processing using the, 153
Two-dimensional magneto-optic spatial light modulator for signal processing, 191
Two dimensions, problems in, 199

Very high speed integrated circuit (VHSIC) program overview (Cancelled), 347
Very high speed integrated circuit (VHSIC) chip sets for selected signal processing functions, relative performance of, 245
Very high speed integrated circuit (VHSIC) chip sets and brassboards, 240
Very high speed integrated circuits (VHSIC), signal processor architecture performance assessment for, 260
Very large scale integration (VLSI) array processors, synchronous versus asynchronous computation in, 53
Very large scale integrated (VLSI) structure for digital signal processing, concurrent, 252

War games, real-time computer network for, 288